

COMPLETE LISTING OF THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1. – 49. (cancelled)

50. (currently amended) A method of forming a moulding by multiple injection moulding, said method comprising:

injecting a first material into a mould;

injecting at least a second material into said mould behind said first material so that said first material covers a surface of said mould, wherein at least one of said materials includes magnetic particles; and

applying one or more magnetic fields to at least a portion of at least one of said injected materials including magnetic particles so as to change the orientation and/or distribution of magnetic particles in at least one of said materials, wherein said one or more magnetic fields changes the orientation and/or distribution of at least some of said magnetic particles in order to give a desired visual effect in at least a part of the moulding.

51. (previously presented) A method as claimed in claim 50, wherein said second material is injected into said mould before said first material has cured completely.

52. (previously presented) A method as claimed in claim 50, wherein at least a third material is injected into said mould after said second material is injected.

53. (previously presented) A method as claimed in claim 52, wherein said third material is injected into said mould before said second material has cured completely.

54. (previously presented) A method as claimed in claim 52, wherein said first and/or second and/or third material comprises magnetic particles.

55. (previously presented) A method as claimed in claim 52, wherein said

first and/or second and/or third material is substantially translucent or transparent.

56. (cancelled)

57. (previously presented) A method as claimed in claim 50, wherein said magnetic fields orientate and/or distribute at least some of said magnetic particles substantially uniformly.

58. (previously presented) A method as claimed in claim 50, wherein the strength of said magnetic fields is varied with time.

59. (previously presented) A method as claimed in claim 58, wherein the strength of said magnetic fields is varied by varying the power delivered to one or more electromagnets with time.

60. (previously presented) A method as claimed in claim 50, wherein the strength and/or location of said magnetic fields is varied with time by moving one or more permanent magnets or electromagnets relative to said mould.

61. (previously presented) A method as claimed in claim 50, wherein said magnetic fields are applied in said mould before said at least one material has cured completely.

62. (previously presented) A method as claimed in claim 50, wherein said magnetic particles comprise nickel.

63. (previously presented) A method as claimed in claim 62, wherein said magnetic particles comprise leafing grade nickel flakes.

64. (previously presented) A method as claimed in claim 50, wherein said magnetic particles comprise a core and an outer coating.

65. (previously presented) A method as claimed in claim 64, wherein said

core is a magnetic material.

66. (previously presented) A method as claimed in claim 64, wherein said coating is aluminium, magnesium fluoride and aluminium or magnesium fluoride and a metal.

67. (previously presented) A method as claimed in claim 64, wherein said coating is coloured.

68. (previously presented) A method as claimed in claim 50, wherein said magnetic particles are highly reflective.

69. (previously presented) A method as claimed in claim 50, wherein said magnetic particles are highly absorptive of light.

70. (previously presented) A method as claimed in claim 50, wherein said magnetic particles are substantially spherical.

71. (previously presented) A method as claimed in claim 50, wherein said magnetic particles have an elongated, non-spherical shape.

72. (previously presented) A method as claimed in claim 50, wherein said magnetic particles comprise 2-15% of the weight of at least one of said materials.

73. (previously presented) A method as claimed in claim 72, wherein said magnetic particles comprise 3-10% of the weight of at least one of said materials.

74. (previously presented) A method as claimed in claim 73, wherein said magnetic particles comprise about 5% of the weight of at least one of said materials.

75. (previously presented) A method as claimed in claim 50, wherein said magnetic particles comprise 0.1-15% of the weight of at least one of said materials.

76. (previously presented) A method as claimed in claim 75, wherein said magnetic particles comprise 0.5-10% of the weight of at least one of said materials.

77. (previously presented) A method as claimed in claim 75, wherein said magnetic particles comprise 0.1-3% of the weight of at least one of said materials.

78. (previously presented) A method as claimed in claim 76, wherein said magnetic particles comprise about 2% of the weight of at least one of said materials.

79. (previously presented) A method as claimed in claim 76, wherein said magnetic particles comprise about 3% of the weight of at least one of said materials.

80. (currently amended) A method as claimed in claim 52, wherein said first and[/~~or~~] second [~~and/~~or] third materials comprise different weight percentages of magnetic particles.

81. (previously presented) A method as claimed in claim 50, wherein at least one of said materials is injected into said mould whilst said mould is at an elevated temperature.

82. (previously presented) A method as claimed in claim 81, wherein said temperature is in a range from 20 °C to 150 °C.

83. (previously presented) A method as claimed in claim 50, wherein said moulding is partially cured in said mould and is heated until completely cured after removal from said mould.

84. (previously presented) A method as claimed in claim 83, wherein one or more further magnetic fields are applied to said moulding after it has been removed from said mould.

85. (cancelled)

86. (withdrawn) A moulding apparatus comprising:
a mould;
means for injecting a first material into said mould;
means for injecting at least a second material into said mould, wherein at least one of said first and second materials comprises magnetic particles; and
means for applying one or more magnetic fields in said mould so as to change the orientation and/or distribution of magnetic particles in at least one of said materials.

87. (withdrawn) An apparatus as claimed in claim 86, wherein said means for providing one or more magnetic fields comprises one or more permanent magnetic and/or one or more electromagnets.

88. (withdrawn) An apparatus as claimed in claim 87, wherein said magnets and/or electromagnetics are provided in the walls of said mould.

89. (withdrawn) An apparatus as claimed in claim 87, further comprising means for moving said magnets and/or electromagnets relative to said mould.

90. (withdrawn) An apparatus as claimed in claim 86, further comprising means for heating the inner surface of said mould.

91. (withdrawn) An apparatus as claimed in claim 86, wherein said mould has irregular and/or discontinuous inner surfaces.

92. (withdrawn) An apparatus as claimed in claim 86, wherein said at least one moulding material is delivered to said mould by an extruder.

93. (withdrawn) An apparatus as claimed in claim 86, wherein said means for applying one or more magnetic fields is arranged so that the orientation and/or distribution of at least some of said magnetic particles is changed in order to give a desired visual effect in a part of the moulding.

94. (withdrawn) A moulding apparatus comprising:
a mould and means for injecting a moulding material into said mould, wherein
said moulding material comprises magnetic particles; and
means for applying one or more magnetic fields in said mould so as to change
the orientation and/or distribution of magnetic particles in said moulding material.

95. (withdrawn) An article formed by injection moulding, said article
comprising at least a first material comprising magnetic particles, wherein the
orientation and/or distribution of at least some of said magnetic particles has been
changed by one or more magnetic field in order to give a desired visual effect in a part
of the article.

96. (withdrawn) A mould for injection moulding plastics, said mould
having one or more openings receiving a non-magnetic insert, said non-magnetic
insert comprising a magnetic insert.

97. (withdrawn) A mould as claimed in claim 96, wherein said non-
magnetic insert is copper.

98. (withdrawn) A mould as claimed in claim 96, wherein said magnetic
insert is a sintered ferrite magnet.